

Serial No.: 10/695,591
Art Unit: 1763**AMENDMENTS TO THE CLAIMS**

Please amend the claims as indicated hereafter.

Claims:

1. (Withdrawn) A microstructure, comprising:
 - a substrate;
 - an overcoat layer disposed upon the substrate;
 - an air-region within at least a portion of the overcoat layer; and
 - a framing material layer engaging at least a portion of the air-region on an inside surface of the framing material layer, and engaging the overcoat layer on an outside surface of the framing material layer.
2. (Withdrawn) The microstructure of claim 1, wherein the overcoat layer is selected from polyimides, polynorbornenes, epoxides, polyarylenes ethers, polyarylenes, inorganic glasses, and combinations thereof.
3. (Withdrawn) The microstructure of claim 1, wherein the framing material is selected from SiO_2 , Si_3N_4 , SiO_xN_y (where x is from 0.01 to 2 and y is from 0.01 to 1.33), and Al_2O_3 .
4. (Withdrawn) The microstructure of claim 1, wherein the air-region has a height from about 0.01 to 100 micrometers and a width of about 0.1 to 10,000 micrometers.
5. (Withdrawn) The microstructure of claim 1, wherein the framing material has a thickness of about 0.001 to 10 micrometers.
6. (Withdrawn) The microstructure of claim 1, wherein the framing material has a thickness of about 0.01 to 2 micrometers.
7. (Withdrawn) The microstructure of claim 1, further comprising a plurality of air-regions disposed within the overcoat layer, the framing material layer of each of the plurality of air-regions engaging at least a portion of each air-region on the inside surface of the framing material

Serial No.: 10/695,591
Art Unit: 1763

layer and engaging the overcoat layer on the outside surface of the framing material layer.

8. (Withdrawn) The microstructure of claim 7, wherein the air-regions are positioned at multiple height levels within the overcoat layer.

9. (Withdrawn) The microstructure of claim 8, wherein a first air-region is positioned above and substantially in-line with a second air-region.

10. (Withdrawn) The microstructure of claim 8, wherein a first air-region is positioned above and substantially offset from a second air-region.

11. (Withdrawn) A microstructure, comprising:

 a substrate;
 an overcoat layer disposed upon the substrate;
 a sacrificial polymer layer disposed within at least a portion of the overcoat layer; and
 a framing material layer engaging at least a portion of the sacrificial polymer layer on an inside surface of the framing material layer and engaging the overcoat layer on an outside surface of the framing material layer.

12. (Withdrawn) The microstructure of claim 11, wherein the overcoat layer is selected from polyimides, polynorbornenes, epoxides, polyarylenes ethers, parylenes, inorganic glasses, and combinations thereof.

13. (Withdrawn) The microstructure of claim 11, wherein the framing material is selected from SiO_2 , Si_3N_4 , SiO_xN_y (where x is from 0.01 to 2 and y is from 0.01 to 1.33), and Al_2O_3 .

14. (Withdrawn) The microstructure of claim 11, wherein the sacrificial layer polymer is selected from polyimides, polynorbornenes, epoxides, polyarylenes ethers, parylenes, inorganic glasses, and combinations thereof.

15. (Withdrawn) The microstructure of claim 11, wherein the sacrificial layer polymer is solvent

Serial No.: 10/695,591
Art Unit: 1763

incompatible with the overcoat.

16. (Withdrawn) The microstructure of claim 11, wherein the sacrificial layer polymer has a height from about 0.01 to 100 micrometers and a width of about 0.1 to 10,000 micrometers.

17. (Withdrawn) The microstructure of claim 11, wherein the framing material has a thickness of about 0.001 to 10 micrometers.

18. (Currently amended) method for fabricating a microstructure, comprising:

providing a substrate having a sacrificial polymer layer disposed thereon;
disposing a framing material onto at least a portion of the sacrificial polymer layer; and
disposing an overcoat layer onto the framing material, wherein the framing material substantially separates the sacrificial polymer layer from the overcoat layer; and
removing the sacrificial polymer via thermal decomposition.

19. (Currently amended) The method of claim 18, further comprising: wherein the step of removing the sacrificial polymer comprises removing the sacrificial layer to define an air-region within the overcoat layer, the framing material engaging at least a portion of the air-region on an inside surface of the framing material and -----.

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